SCHOOL LIFE

OFFICIAL JOURNAL OF THE ★ ★ ★ ★ ★ ★ ★ ★ ★

OFFICE OF EDUCATION

AMONG THE CONTENTS

February 1958

Look Now

at YOUR OWN CHILD

INEVITABLY the problems of American education come back to the local community. If the problems are there, we must start there to find the answers.

I ask you now, you as a member of *that local community*, to look carefully and appraisingly at *your own children*—at the other children around you, and at your schools.

How do you want these youngsters to grow up? Mass-taught because there isn't sufficient classroom space for them? Indifferently taught because the teaching profession may fail to hold its outstanding people? Half-taught and prepared only for mediocrity because no one encouraged them to stay in school?

Any or all of these things could happen to the children in your community—unless you take an active interest in your school—in *all* schools—and express that interest meaningfully.

Express it in letters to your school board, city and county officials, State and national legislators. Express it in active support and encouragement of teachers, in personal participation in school affairs.

Express it with understanding and with vigor.

School problems cannot be solved by magic but only by vigorous action on the part of informed citizens who care enough to work hard enough for good schools.

Only you can do it.

If you fail to act by voicing your concern as a citizen, then you have failed in citizenship itself.

Look now at your own child and see if the effort is worth it.

An excerpt from Education '57, *first radio-television report on education to the people of America by the U. S. Commissioner of Education, December 1957.*

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE . MARION B. FOLSOM, *Secretary*
OFFICE OF EDUCATION . . . . . LAWRENCE G. DERTHICK, *Commissioner*

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Before you discuss it, define your term:

"Direct Teaching by Television"

By Ronald R. Lowdermilk

EVERYBODY, educator and layman alike, seems to have an opinion about direct teaching by television. Many are all for it, many against it. Few are neutral. Some classroom teachers welcome it as a highly versatile teaching aid; others see it as a threat to job security. One school administrator hails it as the long-sought answer to shortages in school housing and qualified teachers; another considers it a stopgap measure, to be used only until a permanent solution is found. One segment of the school community applauds its use as evidence of progressive outlook; another condemns it as a second-rate substitute for regular classroom instruction.

Just where do you, the reader, stand on this question of the academic validity of using television for direct teaching of school and college subjects?

You "think it's a good thing"? Precisely what is it you are endorsing? Is it the use of television as a source of new and vital content materials to *supplement* the basic work of the classroom teacher? The use of it to provide a "master teacher" for every subject? Or the use of it to accomplish the total teaching job for a specific subject?

Conversely, if you are opposed to direct teaching by television, why do you object? Do you question its ability to do more than just "transmit" or "communicate" subject matter? Do you feel it tends to emphasize showmanship at the expense of fundamental education and psychological progression? Or do you doubt that it can ever hope to provide the deep intellectual and spiritual stimulation inherent in the true classroom situation?

Actually, the term "direct teaching by television" has come to have so many meanings that it is necessary to define precisely what particular aspect of it is under consideration before we can evaluate its pros and cons. Most of the major differences of opinion among researchers in the TV education field can be traced to their having assumed common meanings for certain terms that differ widely in meaning from one project to another.

A careful examination of the organic structure of more than 100 current experimental projects involving direct teaching by television reveals three fundamentally different classification bases in common use: Character and format of the lesson presentation; intended educational role of the lesson; and responsibility for content and teaching methods.

Lesson-Presentation Format

In terms of the character and format of the individual lesson presentation, any use of television for the direct teaching of a regular school or college subject can be classified into one or another of three categories:

Televised Education

Televised lesson presentations undertake to bring the viewer a picture situation approximating an actual classroom learning experience, with the expectation that the viewer will automatically feel himself an active participant. However, findings from research using this type of presentation tend to indicate that the average viewer, when confronted with a TV picture of a teacher before a group of students, is not so likely to feel himself a participant as to be merely a spectator of action that is happening to somebody else. Instead of paying attention to the TV teacher, therefore, he simply watches another TV drama unfolding before him.

Thus there is a growing tendency to reduce the size of on-camera student groups, or to eliminate use of such groups entirely and to employ a camera angle directly facing the teacher. Lessons originate from a studio set depicting the front of a conventional classroom. The teacher stands or sits behind a typical teacher's desk, turning, from time to time, to point out words or phrases on the chalkboard or to graphic information on maps or charts. Instead of speaking to an on-camera class-group, the teacher teaches the camera directly, maintaining continuous eye-to-eye contact with every viewer.

Lesson Broadcast Production

Whether intended for broadcast over a local television station or for distribution over a closed-circuit TV system to specific viewing groups, any lesson broadcast production is actually a television program. In it, a lesson series is organized around sequentially related topics that lend themselves to TV programing. Each lesson presentation employs professional broadcast television production techniques and showmanship. Those who advocate this type of lesson presentation contend that anything short of this will end only in failure to realize TV's "full educational potential."

It is understandable why courses presented over television broadcast stations employ this type of lesson-presentation. Lessons must conform

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to established production practices and programing policies, and usually the station's regular production staff assists the teacher-on-camera. However, even in direct teaching over closed circuit TV systems, there is at least some use of the production tricks and showmanship of professional broadcast television since most members of the system-operations staff are recruited from broadcast television.

TV-Instrumented Teaching

TV-instrumented teaching employs television programing facilities simply to enable the teacher-on-camera to do a more precise job or to accomplish a given set of teaching objectives more quickly or thoroughly than he could in the same time without it. Here, as in the better lesson presentations in *televised education*, the teacher "teaches the camera," taking maximum advantage of the opportunity to employ a variety of illustrative materials, mechanical and electrical analogs, and working models, along with production techniques and devices for directing viewer attention and aiding visual comprehension. Under no circumstance is there an attempt to make the lesson a "show." Emphasis is on expediting comprehension—not on entertaining. The TV teacher is usually entirely self-directed and, if desired, may even perform necessary camera aiming, framing, and switching operations by pushbutton remote control, thus eliminating cameramen and program director from the immediate set.

Intended Educational Role

Considered in terms of the precise educational role each lesson presentation is intended to serve, any direct teaching by television can be classified under one of four categories:

Supplementation Programing

Supplementation programing undertakes simply to present educationally significant material on a succession of interesting topics in any given subject. Showmanship and emphasis on human interest are used to attract the widest possible audience. No series of programs is intended to serve as the basic structural sequence for teaching any course; instead the individual classroom teacher accepts or rejects each program in a series on the basis of its applicability to the classwork in progress. In short, any program series of this type is intended to supplement the basic teaching of the local classroom teacher, not to dominate it.

Much of the educational programing initiated by local commercial TV stations tends to fall into this category, as does some of the local school-of-the-air programing.

Basic Teaching Job, Supplemented Locally

Another type of teaching by TV attempts to teach the basic essentials of a given course, leaving it to the local classroom teacher to adapt the TV lessons to the needs and interests, the comprehension level, and the experience of her class.

Of the hundred or more experimental TV teaching projects currently in progress, a majority are using this type of lesson presentation. It is also found in much of the local TV school-of-the-air programing.

Communication Only

Yet another type of TV education extends only through the communication phase of the total teaching process, leaving the classroom teacher with full responsibility for the application phase.

Advocates of this type of TV teaching hold that most research findings showing TV teaching to be more effective than conventional classroom teaching are based wholly on achievement type tests and thus do little more than establish TV teaching's some what greater effectiveness in performing the communication phase of teaching—that, in the final analysis, research so far has produced no objective evidence that direct TV teaching can make learning functionally operative in the intellectual processes and disciplines of students. Until research proves otherwise, they contend, we must proceed on the assumption that responsibility for the application phase of teaching properly rests with the classroom teacher. However, inasmuch as the communication phase of teaching occupies somewhat over three-fourths of the average teacher's working time, the use of television for the communication phase alone may be a means whereby more able teachers can direct a greater portion of their time and energies to the application phase.

This type of TV teaching has been adopted as the basic teaching pattern for the closed-circuit television project in the public schools at Hagerstown, Md., and is finding increasing use elsewhere.

Total Teaching Job

A small but vocal minority of educators contend that, if we are ever to find a solution to our schoolhousing and teacher-shortage problems, we must ultimately permit direct teaching by television to take over the total teaching job—at least in general courses of the orientation type. They argue that, although achievement tests are the only basis for current research findings favoring TV teaching, the findings do not preclude the possibility of intangible learning gains; that, after all, learning gains from conventional teaching are predicated on the same kind of achievement measurement. Besides, they say, with more experience in direct teaching by television, methods are bound to improve; and the improvements may eventually enable psychologically precise TV lesson-presentations to do the total teaching job.

So far, however, such all-out use of television is being made only in limited experiments in selected school and college subjects and in a number of college extension courses offered to off-campus students.

Responsibility for Content and Methods

Finally, on the basis of who decides what will be taught and how it will be treated, any direct teaching by tele-

vision can be classified into one of three categories:

Master Teacher

The "master" teacher approach to direct teaching by television means selecting the most skillful local teacher in a conventional classroom situation to serve as the teacher-on-camera and making her wholly responsible for deciding lesson content and method of presentation. Most of the earlier attempts to teach regular school and college subjects by television employed this approach, which sees television extending the classroom to take in student groups located elsewhere and enables the teacher-on-camera to reach unlimited numbers of students at once—an approach that still finds wide acceptance.

Teacher-Producer Team

The teacher-producer team approach is based on the theory that the full educational potential of television cannot be realized unless the teacher-on-camera (selected for a thorough knowledge of his subject and ability to project himself on television) is teamed up with an experienced television producer, each considered professionally equal to the other. The two decide jointly *what* will be taught, but *how* it will be presented is held to be a production matter, properly referable to the director. On camera, the teacher performs on cue from the director.

This is the approach most widely used today for broadcast of lessons over local TV stations. Even in closed-circuit projects, where there is no necessity to conform to broadcast-television usage, this approach is usual; system-operations personnel, most of whom are recruited from television broadcast stations, are inclined to favor it.

All-Teacher Team

Through another approach, all teachers of a given subject whose classes are to use a particular series of TV lesson presentations share in determining *what* will be taught and *how* it will be treated. Having delegated to one or more of their number responsibility for preparing and making the on-camera presentations, the teachers must be prepared, as soon as the TV lesson is over, to proceed directly with whatever teaching may be needed to complete the learning experience of their classes.

This approach, developed expressly for the closed-circuit project at Hagerstown, Md., appears to be spreading, with various modifications, to other television teaching projects.

TO SUM UP: No attempt to categorize any given television-teaching experiment is acceptably definitive unless it classifies the teaching three ways, once for each of the three variables—*lesson-presentation format, intended education role,* and *responsibility for determining content and method.*

So what was it you were saying about "direct teaching by television"? Before you start arguing either for it or against it, take time to define precisely what aspects of it you have in mind.

Handbook for School Activities

EVERY year this country's schools spend hundreds of millions of dollars on such activities as athletics, entertainment, clubs, and food services; but about these funds, no comparable or reliable nationwide information exists.

As a step toward gathering such information, the Office of Education on December 9 began a project to prepare a handbook that will be the basic guide for accounting for school activities in the United States. Aims of the handbook will be to—

- Establish for the first time nationwide standard accounts, terminology, and classifications for school activities primarily supported by nontax funds.
- Suggest procedures to secure efficiency, economy, and safety in the handling of such funds.
- Prepare a system of accounting for these funds adaptable for use throughout the United States.

These objectives were established at a meeting of members of the National Advisory Committee for Financial Accounting for School Activity Funds, a group appointed by Commissioner Derthick to assist in the production of the handbook, and members of the Office staff. Members of the committee are Finis E. Engleman, American Association of School Administrators; Charles W. Foster, Association of School Business Officials of the United States and Canada; Edgar Fuller, Council of Chief State School Officers; Robert W. Eaves, Department of Elementary School Principals, NEA; Paul E. Elicker, National Association of Secondary School Principals; and Sam M. Lambert, Director of Research, NEA.

Five Office staff members make up the steering committee for the project: Fred F. Beach, chief, State School Systems; John R. Ludington, chief, Secondary Schools; Helen K. Mackintosh, chief, Elementary Schools; Clayton D. Hutchins, chief, School Finance; and Paul L. Reason, specialist in educational reports. Everett V. Samuelson and Virgil R. Walker of the Office staff will compile the manual, but hundreds of members of the organizations represented on the National Advisory Committee will share in its development.

Participating organizations plan to adopt the handbook on completion.

Training the Practical Nurse

The changing role of the practical nurse challenges educators and administrators at 7 conferences across the Nation

By the PRACTICAL NURSE EDUCATION SECTION, Vera P. Hansel, Chief

IN RESPONSE to the Nation's growing need for more and better prepared nursing personnel, vocational educators with responsibility for training the practical nurse for her role are evaluating their progress and resetting their goals.

Such review went on intensively during the latter half of 1957, when 7 intraregional work conferences across the country, called by the Vocational Division of the Office of Education,* drew representatives from 44 States, 3 Territories, and the District of Columbia—all for the common purpose of helping States more effectively make and carry out plans for practical nurse training program. Those who attended made up a cross section of many groups concerned with such programs under public auspices **; and they focused their attention on subjects which they themselves ranked high in terms both of wide interest and of program need:

A changing role . . .

Graduates of practical nursing programs are being assigned more responsible duties and their changing role is basic to every training program.

Nursing homes and private duty still call for many practical nurses, but only a small number are entering this area of employment. Many practical nurses are being asked to remain in the general hospital after graduation; and many continue to work in the hospital where they had been assigned for experience in patient care. Some are finding employment in special hospitals, such as psychiatric hospitals and sanitariums for chronic diseases and tuberculosis. A few are working in public health agencies such as visiting nurse services or clinics under the auspices of nursing bureaus; and doctors are utilizing the practical nurse to a greater extent in their offices.

. . . and the curriculum

Thus more is being expected of the practical nurse, and the programs under which she is trained must keep pace with the change. The conferees centered much attention on what ways can be found to give the trainee, in the limited time now allotted for her education, not only the information and skills usually accepted as necessary for her work but also the depth of understanding she needs for her new role. Everyone agreed that all her learning experiences, both in the classroom and on the hospital ward, need to be related to the increased responsibility that the hospitals and other health agencies are placing on her.

Although it was agreed that psychiatry has need for well-prepared practical nurses, there was some disagreement as to what constitutes the best preparation. Some educators expressed the belief that the practical nurse should first get a sound and broad background through wide experience in a general hospital, where concepts of mental health are integrated with the total nursing care of medical, surgical, obstetrical, and pediatric patients; and that she could then build upon this base through an in-service education program in the mental institution that employed her. There were some, on the other hand, who felt that selected and guided experiences with patients in a psychiatric service would enrich the program for the student and still leave time for adequate experience with the various types of patients now being cared for by the practical nurse during her hospital practice program.

Certainly the question of which is the better course emphasizes the need for careful scrutiny of the curriculum to determine where it should be revised to make it meet the objectives growing out of the changing function of today's graduate.

. . . selection of students

The conferences also pointed up the importance of a carefully planned recruitment program. This type of program places in training only those students who are capable of satisfactorily completing the training. Poor selection results in a high attrition rate

*The Office of Education administers the practical nurse education program authorized by Public Law 911, 84th Cong., Title III (George-Barden Act).

**The Office of Education was represented by the Assistant Commissioner for Vocational Education and by members of the Trade and Industrial Branch and the Practical Nurse Education Section.

States and localities were represented by directors of vocational education, supervisors of technical and industrial education and practical nurse education, teacher trainers, school principals, chairmen of practical nursing departments, nurse coordinators, and classroom and clinical instructors.

Other groups represented included boards of examiners of nurses, hospital administrators and nursing directors, advisory committees, university faculty in general and nursing education, directors of visiting nurse services, education consultants from psychiatric departments, operators of nursing homes, and practical nurses.

and a high cost of educating each nurse. Preentrance tests as well as careful study of the candidate's health and home background will do much to prevent dropouts.

. . . *training facilities*

Several of the conferences considered physical facilities and clinical practice areas. The size and type of classrooms needed will be affected by many factors, such as the availability of nutrition and science laboratories, the number of laboratories that can be shared with other students, the number of students, and the distance between the school and affiliating hospitals. Some programs operate in large vocational high school buildings; others have only a small building separate from the home school, or space assigned to them in a grammar school or academic high school. In some cities the program is completely housed in classrooms provided by the affiliating hospital. In some, the school furnishes all classroom equipment; in others, the hospital provides some. Conferees agreed that uniformity of facilities was not necessary; the important thing was to have the kinds and quantity of equipment, the physical space and the patients necessary to provide for the maximum learning experience for all students.

. . . *instructors*

Discussions about the preparation of faculty for teaching practical nurses revealed some of the complexity of the teaching situation.

Classes for the most part are heterogeneous groups, ranging in age from 16 to 60; in education, from completion of the eighth grade or its equivalent to a college degree; in experience, from a sheltered home life to one of responsibility, decision making, and community activity.

Added to all this is the instructor's need to understand the principles underlying the nursing of patients in modern society. The practical nurse's knowledge of nursing care is almost as broad as that of a professional nurse but does not have the same depth. Instructors in schools of practical nursing must understand the scope and depth of professional nursing and be able to determine how much of that scope and depth should be passed on to the practical nurse trainee in preparing her to function adequately in the many situations facing today's graduate. The instructor in a school of practical nursing needs a broad preparation in two professional fields—nursing and teaching.

At present there is a serious shortage of well-qualified professional nurses in practical nursing programs. Especially severe is the shortage of instructors in the clinical area, where there is the greatest opportunity for student learning related directly to patient need. A concerted effort must be made to help well-qualified nurses prepare themselves for teaching and supervising students in the hospital.

. . . *program patterns*

The conference participants had an opportunity to gain a clearer understanding of the different organizations and operational patterns found in the various types of programs. Represented were the adult post-high-school programs accommodated in several different physical facilities, some providing housing and/or stipends for students; programs offered to high school students during the last 1 or 2 years of a 4-year program; and programs in which both high school pupils and adult students attend the same classes and have their clinical experiences together in the same hospitals.

For the future

Topics that were rated important for further study in the near future included curriculum revision and methods for assisting instructors to improve their teaching. State supervisors felt they need an opportunity to explore as a group new ways in which they can assist local communities to improve and expand programs.

A 5-day national conference on practical nurse education is being planned for February as a direct result of the wide interest and desire expressed by those concerned with practical nurse education in the States. At this meeting, the conferees will search for those practices that contribute most to successful planning and operation of practical nurse education programs in the States.

NOTE: Reports on the 7 intraregional conferences may be obtained free by writing to the Practical Nurse Section, Division of Vocational Education, Office of Education, Washington 25, D. C.

"les girls"

A NEW C

By MARY S. RESH, program specialist, Tr

THROUGH THE AGES, woman has been a topic of conversation. Eve and Helen of Troy came in for their share of publicity; Joan of Arc and Florence Nightingale are remembered for their vision and dreams. But woman's chief claim to fame has always been her function as wife and mother, even as it is today.

However, a changing cultural concept of woman's role in our society has added a second dimension to the destiny of many homemakers—that of wage-earning. Today countless numbers of women are assuming this dual responsibility.

Never before in our history—not even in the crucial years of manpower shortages during World War II—have women played so important a role in our labor force as they do today. Moreover, predictions for the years ahead emphasize the unprecedented extent to which the women of America will be needed in industry and business if we are to maintain and increase our economy and productivity.

Ever alert to socioeconomic trends, vocational educators have been giving some serious thought to womanpower—to the figures that have been gathered, the studies that have been made, the reports that have been written, and the statements that have been broadcast. To analyze their role in meeting our manpower needs through the effective utilization of womanpower, vocational educators have raised all kinds of questions—and they have have come up with some good answers.

What's New About Women Workers' Figures?

IN 1956 THERE WERE 20.9 MILLION WOMEN IN AMERICA'S LABOR FORCE

. . . there are more women workers today than ever before.

. . . nearly one-third of our labor force is made up of women.

. . . women are employed in a wider range of jobs than ever before.

. . . one out of 3 women (14 years of age and over) works outside the home.

. . . the average jobholding woman is 39.5 years old.

. . . three out of every 5 women who work are married.

BY 1956 THERE WILL BE 26.3 MILLION WOMEN IN THE LABOR FORCE, AN INCREASE OF 5.4 MILLION

. . . the 14 to 24 age group is expected to increase by 1.8 million.

. . . the 35 to 44 age group will increase by nearly 1 million.

. . . the 45-plus age group will increase by 2.6 million.

Why So Many Needed?

Our expanding economy and productivity require increasing numbers of skilled workers.

Serious shortages already exist in many occupations.

These shortages grow even more acute as our 18- to 24-year-olds become less available for work:

. . . more young people are staying in school beyond high school graduation.

. . . many enter the armed services.

. . . girls marry and rear families at an earlier age.

Are Vocational Educators Responsible for Women?

Vocational educators know that our labor supply must be well-trained; that's why they have geared training programs to prepare today's workers with today's skills for today's jobs. Girls and women constitute a reservoir of labor supply that must be trained to fit into today's employment market:

. . . many of the 5.4 million girls and women who will join the labor force between now and 1965 are already being trained through public vocational education programs.

. . . but many more will have to be trained; and vocational educators must provide them with training opportunities.

. . . ongoing programs will have to be expanded and new ones will have to be inaugurated so that girls and women can meet their increasing employment opportunities.

Who Are These Women?

THEY ARE YOUNG WOMEN

. . . who plan on working after they complete high school.

. . . who work intermittently after marriage.

. . . who leave college and need job skills for employment.

Illustrations by LESLIE JACOBS, reprinted from
CHARM: The Magazine for Women Who Work, March 1957

W CHAPTER IN THE MANPOWER STORY

alist, Trade and Industrial Education Branch

. . . who reenter the labor market permanently when their children reach school age.

THEY ARE MATURE WOMEN

. . . who are homemakers and have never worked outside the home.

. . . who find their former job skills are obsolete.

. . . who want to enter a different occupation.

THEY ARE EMPLOYED WOMEN

. . . who can be upgraded to higher level jobs through advanced training.

What Training Will They Need To Do What?

They need training to become the skilled workers now in short supply in the so-called women's occupations.

They need training to help produce the goods and services our rapidly growing population demands.

Educators, therefore, must train more girls and women for jobs in these fields:

. . . BEAUTY CULTURE
. . . COMMERCIAL FOODS TRADES
. . . FACTORY PRODUCTION
. . . NEEDLE TRADES
. . . OFFICE OCCUPATIONS
. . . PRACTICAL NURSING
. . . SALES WORK
. . . SERVICE OCCUPATIONS

Is Something New Being Added?

New occupations, particularly in health services, are creating opportunities for qualified women.

We have many new programs to prepare girls and women for these occupations, but we must inaugurate even more training programs to produce an adequate supply of skilled women to work as—

. . . DENTAL ASSISTANTS
. . . DIETARY ASSISTANTS
. . . MEDICAL LABORATORY ASSISTANTS
. . . MEDICAL SECRETARIES
. . . SURGICAL ASSISTANTS
. . . X-RAY TECHNICIANS
. . . INSTITUTIONAL HOUSEKEEPERS FOR HOSPITALS AND HOTELS
. . . NURSERY SCHOOL ASSISTANTS

How Technical Can Women Be?

Our technology requires a competent workforce. Already in short supply, technicians are more and more urgently needed as our scientific and production tempo steps up.

Industry is hiring an increasing number of women for jobs of a technical nature. Sold on the successful performance of their woman technicians, employers want more and are looking to vocational education to recruit and train them as:

. . . CHEMICAL TECHNICIANS
. . . DRAFTSMEN
. . . ELECTRONICS TECHNICIANS
. . . INDUSTRIAL TECHNICIANS
. . . OPTICAL TECHNICIANS

How Do Educators Generate Womanpower?

THEY SURVEY COMMUNITY NEEDS

. . . to determine what occupations need workers now and in the future.

. . . to find out what skills and knowledge these workers must have.

THEY ANALYZE PRESENT TRAINING

. . . to see if preemployment, retraining, and upgrading courses are available to girls and women.

THEY INAUGURATE OR EXPAND PROGRAMS

. . . to meet demands for skilled workers in occupational areas for which training has not been given.

. . . to satisfy growing needs not being met by present programs.

. . . to train girls and women for their new technical opportunities.

Education for School Librarianship

. . . Some Recent Developments

By Mary Helen Mahar and Willard O. Mishoff

THE PREVAILING demand for school librarians to fill positions in new schools and in schools initiating or expanding library programs has increased pressure on colleges and universities offering library education to recruit and train greater numbers of school librarians. It has also resulted in the organization of new departments of library education in teacher education institutions. An examination of official announcements issued by nearly 1,900 higher educational institutions in the United States in 1956–57 finds that 563, or nearly one-third, were endeavoring to meet this demand through programs in school library education. Inevitably, such a growth of programs has led to some confusion about standards for the professional preparation of school librarians, and has raised some questions on the accreditation of these programs.

THE SCHOOL LIBRARY profession has agreed generally that preparation for school library service should be threefold: General education, philosophy and methods of education, and librarianship. The profession also agrees that the curriculum in librarianship should include both general courses and courses special to school library service. If the school librarian is to fulfill his functions effectively, his professional education should give him a status equal to that of other members of both the library and the teaching profession. He cannot adequately meet these requirements in professional education in a 4-year undergraduate program; such requirements point to 5 or 6 years of undergraduate and graduate study. Because of the increasing opportunities in teaching, supervisory, and administrative positions and the demand for professional leadership in the school library field, there is also need for study and research by school librarians on the doctoral level.

Programs in school librarianship, in general, aim at developing in students (1) knowledge of various school library and instructional materials, (2) competence in school library administration, (3) recognition of the library's place in the school program, (4) understanding of the library's function in the educational development of children and young people, and (5) appreciation of librarianship as a profession.

THE BASIC PROGRAM of the graduate library school usually consists of approximately 30 semester hours of study, or the equivalent of one academic year or more, and leads to the master's degree. Course work beyond the fifth-year level is dependent upon the individual student's background and elected field of study. In general, graduate professional studies aim at (1) analyzing the functions of libraries in society and education, (2) investigating the field of communications (print, film, radio, and television) in its relation to school librarianship, (3) emphasizing the underlying principles and problems of school library service, (4) exploring the literature and bibliography of library science, and (5) familiarizing the school librarian with methods of research applicable to his problems. Library schools offering such graduate programs encourage students to broaden their scholarship and professional outlook through advanced courses in library science and related courses in education.

The American Library Association, through its Committee on Accreditation, has developed standards for the accreditation of graduate library schools. Many of these schools accredited by the American Library Association are offering professional education for school librarians and are contributing significant numbers of professional librarians to the school library profession. However, they represent only 29 of the 563 institutions offering library education, and they cannot begin to meet the needs for school librarians.

A LARGE PART of the responsibility for the professional education of school librarians has, therefore, devolved upon those teachers colleges and liberal arts colleges which offer library education. Some offer courses in library education at the undergraduate level, some at the graduate level; and some have programs that combine undergraduate and graduate courses.

For some time the school library profession has recognized the advantages in beginning professional courses in librarianship at the undergraduate level—for example, the provision of temporarily certified school librarians at the termination of 4 years of undergraduate work, and the possibility of coordinating undergraduate programs with graduate programs in librarianship, education, and general studies.

Standards for Library Science Programs in Teacher Education Institutions, prepared by the Board of Education for Librarianship of the

Miss Mahar is specialist for School and Children's Libraries and Mr. Mishoff is specialist for College and Research Libraries, both in the Library Services Branch, Office of Education.

American Library Association (now called the Committee on Accreditation)[1] in 1952, based its standards on the assumption that "the basic program of education for school librarianship is legitimately to be given at the undergraduate level but the amount of such work in library science should not be so great as to limit the amount of general and professional education common to all teachers; therefore, these standards are intended to accredit only undergraduate curriculums totaling not less than 15 and not more than 18 semester hours." According to the standards, "There should be articulation between the undergraduate programs in library science and the graduate library school programs in the same area."

These standards were prepared for the use of the American Association of Colleges for Teacher Education. Since the function of accrediting teacher education institutions has now been committed to the National Council for Accreditation of Teacher Education, these standards are no longer in effect. However, they represent professional opinion on undergraduate education for school librarianship, which may well be considered in the development of future standards.

The technical preparation of school librarians is provided at the undergraduate level through basic courses in library methods. This instruction emphasizes the techniques of selecting, acquiring, classifying, cataloging, and using books and other library materials suited to a school library, as well as school library administration. Supplementing these fundamentals of librarianship are other courses, useful alike to teachers and librarians, in children's and young people's literature, storytelling, audio-visual materials, and methods of using school library materials in teaching. Students are usually given practical opportunities for observation and supervised work experience in centralized school libraries. In colleges for teacher education, these activities are usually integrated with student-teaching programs.

[1] These standards were prepared with the assistance of the American Association of School Librarians, Association of College and Reference Libraries, and State School Library Supervisors.

ALTHOUGH LIBRARY education programs for school librarians were available in 1956–57 in 563 institutions of higher education in continental United States and its outlying parts, their distribution by Census regions varied widely. There were 62, or 11 percent, of these institutions in the 9 Northeastern States; 197, or 35 percent in 12 North Central States; 208, or 36.9 percent in 17 Southern States; 95, or 16.9 percent in 11 Western States; and 1, or 0.2 percent in 5 outlying parts of the United States. A majority of the programs for school librarians were administered in a department of library science, but in at least 65 institutions such courses were administered or offered in the department of education.

PROGRAMS OF SCHOOL library education varied widely in scope. At the top were 121 colleges and universities that provided courses totaling 24 or more semester hours, or the equivalent, and representing approximately an academic year of graduate or undergraduate study. Below this level were 270 institutions that offered, as a part of the teacher education curriculum, programs of 6 to 23 semester hours in school librarianship. Included in these two groups were 178 institutions that provided a formal major or minor of 15 or more semester hours in library courses at the undergraduate level for the preparation of school librarians. There were 172 colleges that endeavored to provide the rudiments of library methods for teachers in courses of less than 6 semester hours.

In some States, a relatively large number of institutions offer less than 20 hours of library education; in other States few or no institutions offer such courses.

In colleges of teacher education, programs for school librarianship have been influenced by the common problems of providing professional personnel for public schools. The acute shortage of qualified teachers and librarians in this country has deterred college administrators from extending 4-year teacher education programs to 5 years for students without professional experience, even though a strong trend in professional thinking in this direction existed before World War II. As a consequence, more and more professional courses have been placed in undergraduate curriculums.

TO ASSIST teachers colleges and other institutions in developing their programs in library education in accordance with professional principles, the ALA Committee on Accreditation has recently appointed a subcommittee to develop standards for the accreditation of undergradute programs of library science. It is believed that these standards will be used along with those of other professional groups by the National Council for Accreditation of Teacher Education in evaluating all areas of education in teacher education institutions. Programs in library education, therefore, will be evaluated by the Council not only in terms of standards of professional librarianship but in terms of their relationship to the philosophies and purposes of the institutions under evaluation. This concept of standards should be of value to teacher education institutions in establishing curriculums of library education alined with the total programs of teacher education—programs which are usually designed to meet the special needs of regional and State school systems as well as the requirements for State certification.

This concept of standards should be of value also in facilitating the provision of courses in school library materials and their use in teaching, not only to students training for school librarianship but for students training for school administration and teaching. Although some institutions do give courses in these fields

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HERE *School Life* continues its reporting-in-brief on projects that have been completed under the Office of Education's Cooperative Research Program, now in its second year. The project reported below is fifth in the series; the first four were summarized in the issues for December 1957 and January 1958.

RESEARCH METHODS: A CRITICAL REVIEW

INVESTIGATORS in the field of mental deficiency seem to have an "occupational disease"—a predilection for matching. With few exceptions they select variables like mental age, chronological age, and length of institutionalization and, on the basis of those, carefully pair each individual in an experimental group with another individual in the control group; or they match the two groups on the basis of averages, without special regard to individuals.

This is the conclusion reached by Julian C. Stanley, professor of education at the University of Wisconsin, and his coworker Ellen Y. Beeman, after 6 months of surveying the published reports of experimental investigations in that field. They have found many studies that would have been better served if the investigators had forgotten all about matching and had instead selected the individuals for each group at random and then submitted the data to the arithmetical procedure known as analysis of covariance. And they have found many studies in which the investigators matched their groups, some with good reason, but then went on to ignore completely, in their statistical analyses, the effects of the matching.

In study after study Dr. Stanley and Miss Beeman have found evidence of the undesirable effects of matching.

Two of these undesirable effects arise from the fact that the matching of persons from two different populations requires the discarding of certain unmatchable individuals—especially those at the bottom of the lower scoring population and those at the top of the higher scoring population. The effects are these:

1. The population to which conclusions may be generalized is restricted.
2. The dependent variables regress toward the means of the initial populations and thereby bias the conclusions in favor of the initially higher scoring population.

Obviously, matching is almost always inadvisable when an appreciable number of potential subjects must be discarded.

A third disadvantage of matching—loss of "power"—occurs if the investigator does not explicitly take the matching into account when he tests the significance of the difference between positively correlated means. His results may be such that he is unable to declare them significant; and if he cannot do so, he will fail to reject the null hypothesis often enough—a failure that can seriously becloud the interpretation of his findings.

IN A SUMMARY report to the Office of Education, Dr. Stanley translates his basic findings and conclusions into some explicit guidance for the researchers of the future:

★ If your experimental and control groups differ initially in one or more antecedent variables thought to be correlated with the outcome of the study, perform an analysis of covariance instead of matching the subjects.

★ If you are matching subjects from only a *single* group on one antecedent variable in order to increase the power of the significance test, and if you retain *all* subjects, you will probably find the randomized block design superior to the analysis of covariance, and considerably easier to analyze.

★ If you must match individuals or groups, be sure to take the matching explicitly into account in your statistical analysis.

The full report of the Stanley-Beeman study is more than a critique of research design for studies of mental retardation. It is a basic essay on modern research design, procedure, and analysis; and as such it should prove valuable to researchers in every area of education.

RESEARCH DIRECTOR

ON JANUARY 2, Roy M. Hall, formerly director of the Southwest School Administration Center, University of Texas, took over his new duties as head of the Office's cooperative research program, which this year has $2.3 million to spend on research projects throughout the country.

Dr. Hall brings wide educational experience with him to the Office. He has been a classroom teacher, in both elementary and secondary schools, a principal, an administrator, and a college lecturer. In 1956–57 he conducted a study of the utilization of school personnel and facilities for the Texas Education Agency. He holds degrees from Piedmont College, Emory University, and Syracuse University.

Before Dr. Hall's coming to the Office, the research program was under acting directors: Former Deputy Commissioner of Education J. Ralph Rackley, from the inception of the program until October 26, 1956; subsequently, Herbert S. Conrad, director of the Research and Statistical Services Branch.

The State and Nonpublic Schools

A basic text on legislative practices

HOW to insure an educated citizenry and at the same time encourage desirable freedom and initiative for educational institutions is a problem of first magnitude in a free society, say Beach and Will* in their recent publication, *The State and Nonpublic Schools*, a 152-page volume published by the Office of Education. They point out that the problem is particularly pertinent in the United States, where public and nonpublic schools exist side by side.

A previous study by the same authors—*The State and Education*—describes how States have established a governmental structure to keep the control of public schools close to the people being served. The new publication describes the legal framework under which the nonpublic schools can enjoy desirable freedom in their operation and yet be encouraged to provide educational programs in the public interest. It deals with overall State regulation and supervision of nonpublic schools. It also sets forth the legislative plan under which nonpublic schools are regulated as educational institutions.

Since *The State and Nonpublic Schools* is so broad in scope, it is possible to treat only a few highlights in this brief review.

Important Educational Resources

A larger and larger share of American youth are being educated in nonpublic elementary and secondary schools. The Office of Education estimates indicate that, if trends continue, by 1965 the nonpublic schools will enroll 6,840,000, or 14.6 percent of all students in elementary and secondary schools. This will be an enrollment ratio of 1 to 6 as compared with 1 to 11 in 1899–1900 and 1 to 7 in 1953–54.

During the past quarter century, nonpublic colleges and universities have accounted for approximately 1 out of every 2 resident students in institutions of higher learning. These nonpublic enrollments increased from 571,949 in 1931–32 to 1,158,231 in 1953–54.

PUBLIC AND NONPUBLIC SCHOOLS DEFINED

A "public" school is the creature of the State and not only is subject to the State's regulatory controls but is under the immediate operational control of a governmental agency or agent. A "public" school is supported and maintained at public expense.

A "nonpublic" school, while subject to pertinent regulatory controls of the State, is under the immediate operational control of a private individual or organization. A "nonpublic" school exists apart from the public school system of the State. It may be operated as a church-related or nonsectarian institution. It may be operated on a profit or nonprofit basis. A "nonpublic" school is generally supported by private funds as distinguished from public funds raised by taxation.

—from *The State and Nonpublic Schools*

Basic Rights

The authors elaborate on two decisions of the Supreme Court of the United States particularly pertinent in defining and upholding the basic rights of nonpublic schools: The Dartmouth case and the Oregon case.

The Dartmouth College case grew out of an act passed in 1816 by the legislature of New Hampshire which would have voided the original charter of the college and created a new corporation of public character. In its decision, the Supreme Court of the United States upheld the right of an educational institution to exist as a private corporation.

The Oregon case grew out of an initiative measure adopted by the people of Oregon, requiring parents and others having control of children subject to compulsory attendance provisions of the law to send such children to public schools. Two corporations owning and conducting schools in Oregon—The Society of Sisters and Hill Military Academy—sought to restrain State officials from enforcing the measure. The Court, deciding in favor of the corporations, held that it was an unreasonable interference with the liberty of parents and guardians. In making the decision, however, the Court pointed out that "No question is raised concerning the power of the State reasonably to regulate all schools, to inspect, supervise and examine them, their teachers and pupils; to require that all children of proper age attend some school, that teachers shall be of good moral character and patriotic disposition, that certain studies plainly essential to good citizenship must be taught, and that nothing be taught which is manifestly inimical to the public welfare."

State Regulation Through General Legislation

Since the powers not delegated to the United States under the 10th amendment of the Constitution are reserved to the several States, each State has developed a large body of laws to regulate and supervise schools, both public and nonpublic. The authors note that such laws may be general in nature or explicit.

Laws that apply *generally* to nonpublic schools are those which regulate the activities of individuals and organizations conducting businesses

*Fred F. Beach and Robert F. Will are chief and assistant specialist, respectively, State School Administration, Office of Education.

or charitable undertakings within the State. Under the powers and duties delegated by these laws, numerous administrative agencies of the State have direct or indirect regulatory responsibilities for nonpublic schools. For instance, nonpublic schools conducted within buildings are subject to State regulation and supervision through agencies responsible for enforcing building codes, fire regulations, health and sanitation codes, and other codes and regulations pertaining to buildings; nonpublic schools employing workers are subject to regulation as employers of labor; and nonpublic schools that board and care for children are subject to regulation by agencies responsible for the general welfare of children.

State Regulation Through Explicit Legislation

These general laws, however, do not treat nonpublic schools as educational institutions and thus do not serve to accomplish one of the fundamental objectives of the State: insuring an educated citizenry. To achieve this objective, States have established regulations that apply *explicitly* to nonpublic schools as educational institutions. By far the largest number of these laws involve responsibilities of State departments of education.

The authors identify certain common areas of explicit legislation under which nonpublic schools are regulated as educational institutions: (1) Incorporation, (2) State approval of institutions, (3) compulsory education, (4) public support, (5) tax exemptions, and (6) occupational licensing.

✦ *Incorporation:* The State may regulate nonpublic schools as educational institutions through its system of incorporation. The act of incorporation brings the nonpublic school under legislative regulation designed to facilitate self-government. With the powers granted, there are concomitant responsibilities for reporting and for meeting other requirements of the law.

✦ *State approval of institutions:* The State may require approval or grant approval upon request. Legislation requiring approval, which applies most frequently to private trade and business schools and to private institutions of higher learning conferring degrees, does not permit the institution to operate or conduct certain educational activities until it obtains approval. Only a few States have laws that explicitly require approval for schools serving children of compulsory school age.

In many instances, the law provides for granting approval upon request. Institutions that submit voluntarily to State regulation and supervision do so for the advantages official approval affords; for example, private institutions preparing teachers for public schools desire official approval so that their graduates can be licensed or certified under the same conditions as graduates from public teacher-training institutions.

✦ *Compulsory education:* Legislation for compulsory education is the cornerstone of the State's plan to insure an educated citizenry, for its goal is to provide a basic minimum education for every educable child regardless of the school he attends. Under such legislation States may make express requirements of nonpublic schools: To keep records and make any reports that are needed to establish evidence that children are attending school in compliance with the law; to remain in session for a term that compares favorably with the term prescribed for the public schools; and to provide educational programs that compare favorably with the programs required in public schools.

✦ *Public support:* Public funds and services are authorized by statute in a number of States to nonpublic schools and/or children and youth attending nonpublic schools. The statutes provide for payments for operation of a school, program, or project; payments for instruction, care, and other services; buildings; scholarships and tuition allowances; textbooks; health and welfare services. When public funds and services are thus authorized, the law generally includes regulatory provisions.

✦ *Tax exemption:* A State may use tax exemption as a device to regulate educational institutions. The clearest example is found in the laws of Rhode Island, which say that any school receiving aid from the State, either by direct grant or by exemption from taxation, is subject to examination by a State educational agency. By refusing to comply with the law, a school may be denied exemption from taxation.

✦ *Occupational licensing:* Persons seeking to practice certain occupations in a State must receive official approval to do so, usually in the form of a license. Authority to approve is usually delegated to boards established by law, and to these boards may be delegated also the responsibilities for certifying or approving the schools or programs that train applicants for licensure. Professional and trade schools voluntarily seek approval so that they may provide suitable candidates.

THE *State and Nonpublic Schools* is a sourcebook of legislative practice that should be especially useful to State officials, members of State legislatures, officials of schools both public and private, students of political science, and officials of religious organizations. Prepared at the request of the Council of Chief State School Officers and with the cooperation of the Council's Study Commission, the study places emphasis on State department of education responsibilities for nonpublic schools. The basic data, printed as part of the study, consist of a State-by-State compilation of the constitutional provisions of particular concern to nonpublic schools and the statutory provisions that determine State department responsibilities. Pertinent annotations and compilers' notes are included to clarify certain significant sections of the law.

EDUCATION FOR LIBRARIANS

Continued from page 11

to students preparing to be teachers, the usual practice is to offer them exclusively to students in library education departments. As a consequence, the responsibility for introducing administrators and teachers to the use of library materials in school curriculums falls upon the school librarians in service. Teacher education institutions, therefore, have a unique opportunity to prepare elementary and secondary school teachers in the use of a wide variety of books and other materials in teaching, and to contribute to the effectiveness of school libraries as instruments of education.

PROGRAMS OF SCHOOL library education lead to bachelor's and master's degrees in arts, science, and education and may include a concentration in library subjects directed toward the problems of school librarianship. The bachelor of library science degree, or its equivalent, formerly awarded after a postgraduate year of study in a library school, is now generally superseded by a master's degree. Since a master's degree may qualify a school librarian for a higher position on a salary schedule than a bachelor's degree, many schools have found it necessary to eliminate the distinction between library degrees obtained for a fifth year of professional study.

The number of degrees earned or number of years of undergraduate and graduate study completed by school teachers and librarians exerts considerable influence on salary schedules in elementary and secondary schools. Since school librarians commonly have equal status with teachers on school faculties, a school librarian with 5 years of higher education may generally expect to receive the same salary as a teacher with an equivalent amount of education, if both have equal experience. This fact, in addition to certification requirements and desire for professional growth, encourages school librarians with only undergraduate education to work for the completion of 1 or 2 years of graduate study.

Although recruiting programs for the school library profession must give primary consideration to interest in, and fitness for, school library service, the professional status and salaries of school librarians have implications for recruitment. High school and college students alike are attracted to fields which possess possibilities for professional growth and commensurate salaries. Teachers in service and housewives with college degrees desiring to return to teaching recently have shown increased interest in the school library field because of the nature of the work, the opportunity for service to the entire school program, and continuing professional development. Planning for the education of school librarians requires, therefore, the cooperative efforts of the library profession, school administrators, college and university officials, and others concerned with the recruiting and education of competent personnel for school library service.

PUBLIC SCHOOLS: Pupils, Space, and Teachers

PRELIMINARY REPORT, FALL 1957

DATA from State departments of education for our public schools in the fall of 1957 add up to these totals:

- 32.9 million pupils were enrolled—22.8 million in elementary schools and 10.1 million in secondary.
- 1,937,000 of these pupils were in excess of the normal capacity of publicly owned school plants. Again the schools were trying to adjust by crowding their classrooms, by utilizing makeshift facilities, or by resorting to half-day sessions.
- 140,400 more classrooms were needed—63,200 to take care of the enrollment in excess of normal capacity, and 77,200 to replace unsatisfactory facilities still in use. This indicated some improvement over the fall of 1956, when States reported a shortage of 159,000 classrooms.
- 70,800 classrooms are scheduled for completion during this school year, 1957–58, a 3.2-percent increase over last year's record of 68,600.
- 1.3 million teachers, full-time and part-time, were employed. Of these, 91,200 held substandard certificates, an increase of 3,200 over last year.

These totals, together with information on teaching requirements and schoolhousing, have grown out of the fourth annual collection by the Office of data on eight basic items for public schools in the States and Territories. Preliminary report of the findings is now available in Office Circular No. 513, *Fall 1957 Statistics on Enrollment, Teachers, and Schoolhousing in Full-Time Public Elementary and Secondary Day Schools*, by Samuel Schloss and Carol Joy Hobson. Free copies are available from the Publications Inquiry Unit, Office of Education, Washington 25, D. C.

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